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**Topic 37 - Creating a Dictionary That Contains Lists**

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**What**

You can store a list within a dictionary as a value for one of the dictionary’s keys. This allows you to keep multiple related items under a single key, such as different discount types a customer qualifies for.

**Why**

Placing lists inside dictionaries enables flexible and organized data storage, especially useful for holding multiple data points of the same category (like discounts, hobbies, or order history) for a single entity. This keeps all relevant information together in a single, easily accessible structure.

**How**

To store a list within a dictionary, simply assign the list as the value for the desired key in the dictionary.

Example:

1. **Define the customer dictionary**, including a key named "discounts", which holds a list of discounts:

python

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customer\_29876 = {

"first name": "David",

"last name": "Elliott",

"address": "4803 Wellesley St.",

"discounts": ["standard", "volume", "loyalty"]

}

1. The "discounts" key points to a list that contains strings representing the types of discounts available to the customer.
2. **Access elements** within the list using the dictionary key:

python

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print(customer\_29876["discounts"])

# Output: ['standard', 'volume', 'loyalty']

Access specific items from the list:

python

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print(customer\_29876["discounts"][1])

# Output: 'volume'

**Summary**

Embedding lists in dictionaries provides a convenient way to store multiple related pieces of information under a single dictionary key. This technique is especially valuable for organizing complex data within a single, easily manageable structure.

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